

Mineral Industry Surveys

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MANGANESE IN DECEMBER 1999

In December, reported consumption of manganese ore containing 35% or more manganese, exclusive of that at iron and steel plants, was 34,900 metric tons, which was an increase of about 5% compared with that for the previous month, according to the U.S. Geological Survey. This brought the revised year-to-date total to 445,000 tons, which was only 4,000 tons less than the comparable figure for 1998. The figures for December 1999 increase to 39,100 tons and 495,000 tons when estimates for annual respondents are added on the basis of 1998 data. Corresponding industry stocks of ore at the end of the month were 193,000 tons, which includes an estimate for annual respondents on the basis of 1998 data. This was almost 10% greater than the corresponding figure for stocks at the end of November, and about 13% greater than the corresponding figure as estimated for yearend 1998. (Data for the most recent 13 months are plotted in the graph on page 2.)

Data for domestic consumption and stocks of manganese ferroalloys and metal for the April through June quarter of 1999 will appear in a subsequent monthly report.

Foreign trade data for December will appear in a subsequent report. For November, the data tabulated in this report indicated that the import volume for manganese dioxide was the greatest in more than 15 years. For the two categories of manganese metal combined, the volume, of which about two-thirds was from China, was the greatest since March 1989. The total number of manganese units exported was the greatest since October 1998, as export volumes were the greatest in more than 1 year for ore, silicomanganese, and metal. **Note:** For early availability, the trade data appearing in this report are being placed on MINES FaxBack in preliminary form. The data for November were placed on FaxBack as of February 1. The FaxBack document number for the

December trade data will be 420212.

The Defense Logistics Agency (DLA), U.S. Department of Defense, reported for December no cash disposals of manganese materials from the National Defense Stockpile. Cumulative totals reported by DLA for disposals of manganese Government stockpile excesses in 1999 were, in tons, 63,263 for stockpile-grade metallurgical-grade ore, -45,359 for nonstockpile-grade metallurgical-grade ore, 1,270 for natural battery-grade ore, 3,175 for chemical-grade ore, 15,307 for high-carbon ferromanganese, and 960 for electrolytic metal. The negative figure for nonstockpile-grade metallurgical-grade ore included the effect of a reversion to the stockpile of 136,078 tons because of a contract termination.

In Brazil, Cia. Vale do Rio Doce (CVRD) assumed nearly complete control of most of Brazil's manganese ferroalloy production by taking over the interest of Usinas Siderúrgica de Minas Gerais S.A. (Usiminas) in Vale-Usiminas Participações (VUPSA). VUPSA had been a 50:50 joint venture between CVRD and Usiminas, a steelmaker, that was formed in 1995 to operate ferroalloy plants that had belonged to the Paulista Group, Cia. Paulista de Ferro-Ligas (CPFL) and Eletrosiderúrgica Brasileira S.A. (Sibra). One of the terms of the agreement under which Usiminas withdrew from VUPSA was that VUPSA would continue to supply Usiminas and a subsidiary with manganese ferroalloys for a period of 10 years (Metal Bulletin, 1999).

Reference Cited

Metal Bulletin, 1999, Usiminas withdraws from Brazil Mn alloys sector: Metal Bulletin, no. 8436, December 20, p. 9.

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
1998: 3/						
November	4,740	43,800	48,500	758	1,340	2,100
January-November	177,000	475,000	651,000	4,000	19,500	23,500
1999:						
January	16,300 4/	48,300 4/	64,600	95	1,850	1,940
February	17,900 4/	40,700 4/	58,700	13	1,160	1,170
March	22,100 4/	40,100 4/	62,200	75	1,500	1,570
April	18,300 4/	39,800 4/	58,100	24	1,250	1,280
May	33,100 4/	23,900 4/	57,000	135	1,370	1,500
June	31,900 4/	47,800 4/	79,700	46	1,270	1,320
July	67,200 4/	29,700 4/	96,900	385	1,190	1,570
August	25,800 4/	43,700 4/	69,600	75	953	1,030
September	1,910	23,600 4/	25,500	96	720	816
October	25,400 4/	44,300 4/	69,700	78	878	956
November	27,000 4/	39,000 4/	66,000	972	1,620	2,590
Total	287,000	421,000	708,000	1,990	13,800	15,700

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

3/ Data may include revisions by the Bureau of the Census.

4/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN NOVEMBER 1999 1/

(Metric tons)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	5,030	3,340	\$2,280,000	59,200	39,500	\$22,700,000
Canada	110	72	32,000	223	147	62,000
France	--	--	--	6,740	4,500	2,930,000
Georgia	5,640	4,130	2,300,000	13,400	9,900	5,470,000
India	5,850	3,880	2,190,000	10,900	7,020	4,340,000
Kazakhstan	2,400	1,600	980,000	27,700	17,000	10,900,000
Mexico	4,870	3,240	2,050,000	54,900	36,100	23,200,000
South Africa	6,460	4,270	2,930,000	75,900	51,000	30,000,000
Spain	--	--	--	951	597	615,000
Ukraine	--	--	--	8,190	6,030	2,850,000
Venezuela	--	--	--	14,200	9,350	5,370,000
Total	30,300	20,500	12,800,000	272,000	181,000	108,000,000
Total, general imports	30,300	20,500	12,800,000	272,000	181,000	108,000,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN NOVEMBER 1999 1/

(Metric tons)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Low carbon:						
China	100	89	\$105,000	1,250	1,080	\$1,240,000
Italy	--	--	--	3,400	2,900	4,070,000
Japan	--	--	--	6,500	5,540	5,610,000
Mexico	300	234	272,000	1,820	1,450	1,650,000
Netherlands	--	--	--	43	45	31,700
Russia	--	--	--	21	6	17,700
Slovenia	--	--	--	9	7	5,220
South Africa	700	571	445,000	2,330	2,060	2,880,000
Ukraine	--	--	--	60	57	64,800
United Kingdom	--	--	--	445	417	296,000
Total, low carbon	1,100	894	822,000	15,900	13,600	15,900,000
Total, general imports of low carbon	1,100	894	822,000	15,900	13,600	15,900,000
Medium carbon, 1%-2% C:						
France	2,500 2/	1,700 2/	1,120,000 2/	5,220	3,920	2,630,000
Japan	--	--	--	424	361	511,000
Korea, Republic of	--	--	--	8,550	6,960	5,000,000
Mexico	1,340	1,090	747,000	23,000	18,600	13,200,000
Norway	--	--	--	20	9	18,600
South Africa	500	404	263,000	18,900	15,300	10,800,000
Total, m.c., 1%-2% C	4,340	3,190	2,130,000	56,100	45,100	32,200,000
Total, general imports of m.c., 1%-2% C	4,340	3,190	2,130,000	56,100	45,100	32,200,000
High carbon:						
Australia	2,000	1,530	723,000	9,400	7,160	3,790,000
Brazil	--	--	--	6,580	5,000	2,430,000
China	--	--	--	6,000	4,420	2,260,000
France	10,500	8,180	3,650,000	93,500	72,300	43,800,000
Saudi Arabia	--	--	--	1,270	994	463,000
South Africa	2,750	2,150	979,000	99,500	77,300	37,200,000
Total, high carbon	15,300	11,900	5,350,000	216,000	167,000	89,900,000
Total, general imports of high carbon	15,300	11,900	5,350,000	216,000	167,000	89,900,000
Grand total	20,700	15,900	8,310,000	288,000	226,000	138,000,000
Grand total, general imports	20,700	15,900	8,310,000	288,000	226,000	138,000,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 4
U.S. IMPORTS 1/ OF MANGANESE ORE (20% OR MORE Mn) IN NOVEMBER 1999 2/

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Belgium	18 3/	6 3/	--	--	18	6
China	5 3/	43 3/	--	--	5	43
Gabon	--	--	27,500	14,000	27,500	14,000
Mexico	1,660	653	--	--	1,660	653
South Africa	25,900	9,310	--	--	25,900	9,310
Total	27,500	10,000	27,500	14,000	55,100	24,000
Year to date:						
Australia	--	--	44,900	23,500	44,900	23,500
Belgium	156	61	7,260	6,680	7,420	6,740
Brazil	--	--	2	1	2	1
China	5	43	40	33	45	76
Gabon	37,900	12,400	240,000	114,000	278,000	126,000
Ghana	26,100	10,200	--	--	26,100	10,200
Mexico	19,300	7,400	1,090	523	20,400	7,920
Morocco	--	--	100,000	50,000	100,000	50,000
South Africa	27,300	9,970	58,000	29,200	85,300	39,100
Total	111,000	40,000	451,000	224,000	562,000	264,000

1/ Quantities for general imports and imports for consumption are identical.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN NOVEMBER 1999 1/

(Metric tons, gross weight)

Source	Manganese dioxide				Manganese metal			
	Quantity	Customs value	Year to date		Unwrought		Other	
			Quantity	Customs value	Quantity	Year to date	Quantity	Year to date
Australia	2,990	\$4,220,000	20,400	\$28,700,000	--	--	--	--
Belgium	36	52,600	554	860,000	--	--	--	--
Canada	--	--	--	--	--	--	--	22
China	--	--	7	10,200	556	2,590	1,100	1,680
France	--	--	23	68,500	--	--	2	29
Germany	11	56,600	76	408,000	4	224	--	81
Greece	--	--	16	21,500	--	--	--	--
India	--	--	--	--	--	--	--	16
Ireland	916	1,260,000	7,490	10,500,000	--	--	--	--
Japan	15	23,800	31	45,200	--	--	1	17
Mexico	--	--	--	--	--	--	2	22
Netherlands	--	--	--	--	--	--	--	24
South Africa	1,040	1,490,000	9,580	13,600,000	666	8,340	--	--
Spain	--	--	--	--	--	40	--	--
Ukraine	--	--	--	--	54	305	60	60
United Kingdom	3 2/	23,200 2/	85	234,000	92	439	--	(3/)
Total	5,010	7,140,000	38,200	54,400,000	1,370	11,900	1,170	1,950
Total, general imports	5,010	7,140,000	38,200	54,400,000	1,370	12,200	1,170	1,950

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the Bureau of the Census for verification.

3/ Less than 1/2 unit.

Note: No imports for consumption of metallic manganese waste and scrap were reported, keeping the year-to-date total at 146 tons.

Source: Bureau of the Census.

TABLE 6
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN NOVEMBER 1999 1/

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal 2/	
	November	Year to date	November	Year to date	November	Year to date	November	Year to date
Australia	--	--	--	1	--	33	--	(3/)
Belgium	--	--	--	--	--	--	39	78
Brazil	--	--	--	--	11	11	1	125
Canada	80	1,080	729	3,470	583	3,250	230	1,440
Colombia	--	--	--	18	--	--	--	19
France	--	11	--	--	--	14	--	(3/)
Germany	--	--	--	--	--	--	--	1
Hong Kong	--	--	--	--	--	--	--	1
India	--	--	--	--	--	--	--	1
Italy	--	--	--	--	--	--	--	35
Japan	--	--	--	--	--	--	31	586
Korea, Republic of	--	63	--	--	--	--	1	12
Malaysia	102	102	--	--	--	--	--	--
Mexico	--	--	--	24	24	250	9	82
Netherlands	--	--	--	--	--	19	--	190
Peru	72	162	--	--	--	--	--	--
Singapore	1,690	2,440	--	--	--	--	--	--
Spain	--	--	--	--	--	10	--	(3/)
Sweden	--	--	--	--	--	--	--	98
Taiwan	--	--	--	--	--	--	3	11
United Kingdom	--	136	--	9	8	8	135	673
Total	1,940	3,990	729	3,520	625	3,600	448	3,350

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes manganese-aluminum, some other alloys, and waste and scrap.

3/ Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 232 tons, of which 207 tons went to Canada and 25 tons went to Mexico, to give a year-to-date total of 6,650 tons.

Source: Bureau of the Census.

TABLE 7
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN NOVEMBER 1999, BY CLASS 1/

Class	Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands) 2/	Year to date		
				Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands) 2/
Imports for consumption:						
Manganese oxides other than dioxide	102	\$210	Norway 40; \$31	1,630	\$1,830	Mexico 720; \$138
Sulfates, basket category, including manganese sulfate	2,790	2,000	Mexico 1,820; \$835	36,400	19,600	Mexico 17,700; \$8,910
Potassium permanganate	363	363	Spain 237; \$132	1,580	2,690	Czech Republic 648; \$1,220
Manganites, manganates, and other permanganates	2	8	Canada 2; \$8	2	13	Canada 2; \$8
Exports:						
Manganese dioxide	362	451	Canada 147; \$59	9,690	7,510	United Kingdom 5,110; \$1,630
Manganese oxides other than dioxide	857	1,520	Canada 335; \$127	5,570	5,870	Canada 3,090; \$1,213
Sulfates, basket category, including manganese sulfate	1,640	803	Canada 1,270; \$506	18,300	8,490	Canada 15,400; \$4,700
Potassium permanganate	132	279	Germany 46; \$81	1,140	2,130	United Kingdom 352; \$713
Manganites, manganates, and other permanganates	5	33	Canada 4; \$8	224	1,080	United Kingdom 90; \$608

1/ Data are rounded to three significant digits.

2/ For imports, Customs value; for exports, f.a.s. value.

Source: Bureau of the Census.